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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,982	07/11/2001	David A. Hose	42365-00300	9414
33623	7590	01/03/2005	EXAMINER	
MARSH FISCHMANN & BREYFOGLE LLP/OPENWAVE SYSTEM INC.			D AGOSTA, STEPHEN M	
3151 SOUTH VAUGHN WAY			ART UNIT	PAPER NUMBER
SUITE 411			2683	
AURORA, CO 80014			DATE MAILED: 01/03/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/903,982	HOSE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stephen M. D'Agosta	2683	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 24-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection. A new rejection is provided below.

1. The applicant's amendment has overcome all objections from the first office action dealing with the drawings, specification, abstract and claims.

2. The applicant argues "...that location or target." (*Richton* at col. 4, lines 28-35 and col. 5, lines 18-21). However, *Richton* does not teach or suggest defining at least one service zone boundary for said location-based service application, wherein said service zone boundary passes through at least one of a plurality of coverage areas of the wireless communications network." In the present invention, a user may choose a service zone boundary that passes through a coverage area. For example, a service zone boundary may be a street or any arbitrary demarcation. The service zone boundary may pass through multiple coverage areas. *Richton* does not reach or suggest these features of the invention. For at least these reasons, amended claim 1 is patently distinct over *Richton*.

The examiner continues to interpret *Richton*'s teachings are reading on a "service zone boundary" since he teaches monitoring a user's location in relation to a "zone/region" (eg. airport) and sending pertinent data when the user is near that zone. Further to this point, *Richton* teaches "location-based service" based on the phone's location as defined by the user (C15, L40-65) along with use of GPS technology (see claim 6, C16) which can determine a user location such as a street when defined as a Lat/Long coordinate. Hence the rejection still stands.

3. The applicant argues "...As amended, claim 1 recites defining at least one service zone boundary for said location-based service application, wherein said service zone boundary passes through at least one of a plurality of coverage areas of the wireless communications network; storing an identifier for a mobile unit and monitoring a location of said mobile unit using said location-based service's application and said identifier of said mobile unit, to identify a crossing of said service zone boundary by said mobile unit..." is not taught. The examiner disagrees since the user crosses a "zone boundary" of interest and data is downloaded based on said zone crossing. Hence the examiner interprets the "zone boundary" as passing through at least one (or more) coverage areas since said "zone boundary" is a user-defined imaginary area that passes over/through real cell sites/boundaries from the service provider, and thus reads on the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-5, 9, 12-13 and 15-17** are rejected under 35 U.S.C. 102(e) as being anticipated by Richton US 6,650,902 (hereafter Richton).

As per **claims 1 and 23**, Richton teaches a method for use in providing services based on the locations of mobile units in a wireless network (title, abstract), said wireless network including a switch structure for use in selectively routing communications (figure 2, #220 is a wireless switching station) between network users (#203-1, -2, -3 etc.) and a processing platform associated with the switch structure (figure 2, #221 is a location-based server), said method comprising the steps of:

Providing a location based services application running, at least in part, on the processing platform associated with the switch structure (figure 2 shows separate location server #221 and switch #220);

Defining at least one service zone boundary for said location-based service application, wherein said service zone boundary passes through at least one of a plurality of coverage areas of the wireless network (C4, L3-14 teaches a database server containing locations/service zones such as an airport, see abstract, that define areas of interest to the mobile);

Storing an identifier for a mobile unit ~~of interest to a user~~ (C3, L9-18 teaches storing a mobile unit's phone number to identify it);

Monitoring a location of said mobile unit, using said location based services application and said identifier of said mobile unit, to identify ~~an attainment of a~~

Art Unit: 2683

~~predetermined relationship of said mobile unit relative to said geographic reference, said attainment being defined by a change of status with respect to said predetermined relationship~~ a crossing of said service zone boundary by said mobile unit (C2, L59 to C3, L8 teaches monitoring the mobile's location and/or C4, L28-44 teaches monitoring mobile when within a certain distance of the service zone, eg. an airport); and

Transmitting service information regarding said mobile unit in response to said ~~attainment of said predetermined relationship of said mobile unit relative to said geographic reference~~ crossing of said service zone boundary by said mobile unit (C4, L28-53 teaches transmitting airline data to a user when near the service zone/airport).

As per **claim 2**, Richton teaches claim 1 wherein said step of defining said service zone boundary comprises receiving subscriber specific information from a user regarding said service zone boundary (C8, L45-58) and said step of storing comprises indexing information regarding said service zone boundary to said identifier (C3, L9-62 teaches geographic references being stored in a user profile, eg. as given by a user, and instructions regarding what data is to be transmitted to the user when near said geographic reference AND C8, L45 to C9, L50 teaches the entire process of inputting preferences and indexing/correlating when to respond and with what data to send which reads on the claim ).

As per **claim 3**, Richton teaches claim 1 wherein said step of defining comprises identifying a geographic area for which a user desires to receive notification upon one of:

- a) entry of said mobile unit into said identified geographic area (C4, L40-44); and
- b) exit of said mobile unit from said identified area (C5, L6-10 teaches knowing when a user approaches or leaves a defined geographic reference, eg. home/office);

said step of transmitting comprises providing notification to said user of said entry or exit (C4, L40-44 teaches the system understanding a defined boundary from a geographic reference, eg. being within 1, 10 or 15 miles of the airport, and sending a notification to the user which reads on the claim).

Art Unit: 2683

As per **claim 4**, Richton teaches claim 1 wherein said step of defining comprises receiving zone location information regarding a service zone referenced to a first topology system and expressing said zone information in terms of a second topology system of said location based services application (C8, L45 to C9, L15 teaches the system using multiple zone topologies, including street addresses, LAT/LONG, UTM for GIS mapping and/or GPS [C9, L37-50] and setting a “proximity threshold” [eg. in miles, etc] to trigger data transmission to a mobile user therefore providing the ability to use two or more topologies).

As per **claim 5**, Richton teaches claim 4 wherein the first topology comprises a street grid (C8, L50-55 teaches use of street address/grid).

As per **claim 9**, Richton teaches claim 1 wherein said step of monitoring comprises storing first location information regarding a first location of the mobile at a first time, obtaining second location information regarding a second location of said mobile at a second time and comparing first location to second location to identify crossing of said service boundary by said mobile (abstract teaches monitoring a traveler’s location to a specific location, eg. airport, and sending data when “within a certain distance” which inherently requires the system to periodically check at first/second times to determine if/when the user is near a predefined geographic location).

As per **claim 12**, Richton teaches claim 1 wherein said mobile unit is a telephone and said step of storing an identifier comprises storing an MIN/ESN (C3, L9-18 teaches storing a mobile unit’s phone number to identify it).

As per **claim 13**, Richton teaches claim 1 wherein said step of transmitting service information comprises transmitting said service information to said mobile unit (abstract teaches sending airline information to the mobile as it approaches the airport).

Art Unit: 2683

As per **claim 15**, Richton teaches claim 1 wherein said step of transmitting service information comprises transmitting said service information to a separate application that is registered with said location based services application to receive boundary crossing information regarding said mobile unit (C15, L3-13 teaches sending email, voicemail or facsimile messages to the user when they near home which reads on the claim).

As per **claim 16**, Richton teaches claim 1 wherein said step of transmitting service information comprises transmitting a message to said user providing notice of a boundary crossing event (C5, L5-15 teaches being within a certain distance of the airport and receiving airline information).

As per **claim 17**, Richton teaches claim 16 wherein said message comprises one of voice, text or graphical message (C15, L3-15 teaches converting email, voicemail, fax, etc. into a format that the user can receive on their mobile unit).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6 and 10** rejected under 35 U.S.C. 103(a) as being unpatentable over Richton as applied to claim 1 above, and further in view of Jokiahho et al. US 5,889,770 (hereafter Jokiahho).

As per **claim 6**, Richton teaches claim 4 wherein said second topology comprises one of a geographical coordinate system (C8, L50-55 teaches use of LAT/LONG) **but is silent on** and a system of wireless network subdivision identifiers

Richton does teach location determination via the cellular system and "triangulation, etc". whereby the examiner could interpret "etc." to mean subdivision identifiers.

Jokiahho teaches using cell identifiers (eg. subdivision identifiers) to locate a mobile user's position (The data service center compares the identifier of the cell or group of cells contained by the received data packet with a previous identifier stored in the data service database, and if it notices that the identifier has changed, it updates the location data of the mobile station in the database with the new identifier. This procedure makes it possible to significantly diminish or even entirely avoid the signalling relating to location updating during packet data transmission (C3, L57 to C4, L5).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that cell/subdivision identifiers are used, to provide location determination that does not add considerable load to the cell system for location determination purposes.



Art Unit: 2683

As per **claim 10**, Richton teaches claim 9 and monitoring first/second locations and comparing to determine location of the mobile (abstract teaches monitoring a traveler's location to a specific location, eg. airport, and sending data when "within a certain distance" which inherently requires the system to periodically check at first/second times to determine if/when the user is near a predefined geographic location) **but is silent on** a first zone identifier for a particular zone, a second zone identifier for a particular service zone and comparing comprises determining whether said first zone identifier is the same as the second zone identifier.

Jokiaho teaches using cell identifiers (eg. zone identifiers) to locate a mobile user's position (The data service center compares the identifier of the cell or group of cells contained by the received data packet with a previous identifier stored in the data service database, and if it notices that the identifier has changed, it updates the location data of the mobile station in the database with the new identifier. This procedure makes it possible to significantly diminish or even entirely avoid the signalling relating to location updating during packet data transmission (C3, L57 to C4, L5). Hence, instead of monitoring a user's location via GPS, etc., one skilled would use zone identifiers to determine location.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that cell/zone identifiers are used, to provide location determination that does not add considerable load to the cell system for location determination purposes.

**Claim 7** rejected under 35 U.S.C. 103(a) as being unpatentable over Richton as applied to claim 1 above, and further in view of Hoshen US 5,461,390 (hereafter Hoshen).

As per **claim 7**, Richton teaches claim 1 **but is silent on** wherein said step of providing a location based application comprises providing an application for allowing a person of authority to monitor the movements of one of a person or vehicle associated with said mobile unit.

Art Unit: 2683

Hoshen teaches a locator system that can determine the location of a person who has a wireless transceiver attached to them (eg. for house arrest) which transmits a signal to law enforcement should the person not be within an area that they are supposed to be in (abstract, figures 1-3, 5 and C1, 54 to C2, L11).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that the application allows a person of authority to monitor the movements of one of a person/vehicle associated with said mobile unit, to provide means to track a mobile user and ensure they are within specified areas at all times.

**Claim 8** rejected under 35 U.S.C. 103(a) as being unpatentable over Richton as applied to claim 1 above, and further in view of Linkola US 6,516,190 (hereafter Linkola).

As per **claim 8**, Richton teaches claim 1 **but is silent on** wherein said step of providing a location based services application comprises providing an application for setting a billing parameter for use of said wireless network by said mobile unit.

Linkola teaches Rate charging rules whereby the system determines the cell in which the mobile station is currently located and determines whether the mobile station was in a denoted special rate area at the time that its location was most recently determined. If so, then the object informs the network that the call is entitled to the special rate. Disposed in a billing center is a billing object, to which the locator object sends data indicating whether the call was initiated from a cell or area in which a special rate is applicable, as well as data identifying the particular call. The second object receives the billing records generated by the mobile switching center, which also contain call identifying data, and compares the call-specific data in those records with the data sent by the first object. In this way, the second object can identify from the billing records those calls that are entitled to a special rate, regardless of whether the mobile station has moved during call setup from the original cell into a cell where another rate, e.g. a higher rate, is applicable (abstract, figure 3 and C4, L60 to C5, L44).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that an application for setting a billing parameter for use of said wireless network by said mobile unit is used, to provide means for the system to locate the user and provide special billing rates if available.

**Claims 14 and 22** rejected under 35 U.S.C. 103(a) as being unpatentable over Richton as applied to claim 1 above, and further in view of Pepe et al. US 5,742,905 (hereafter Pepe).

As per **claims 14 and 22**, Richton teaches claim 1 **but is silent on** wherein said step of transmitting service information comprises transmitting said service information to a data network node associated with said subscriber, said data network node being separate from said mobile unit.

Pepe teaches a personal communications internetworking (title, abstract and figures 1-3) whereby subscribers are assigned a single personal telephone for both voice and data communication. An example of a few of the options that PCI may provide for the subscriber are to:

- send the message to the subscriber's wireless PDA;
- send the message to the subscriber's wireline computer at home;
- send the message to the destination text messaging system at the office;
- send a notification of an incoming message to the wireless data terminal and the actual message to the text messaging system.
- send the message to any or all of the above (C25, L8- 40)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that service information is transmitted to a data network node associated with said subscriber, said data network node being separate from said mobile unit, to provide means for sending the information to multiple locations/nodes where the user may be currently located.

**Claim 18** rejected under 35 U.S.C. 103(a) as being unpatentable over Richton as applied to claim 1 above, and further in view of Day US 6,463,273 (hereafter Day).

As per **claim 18**, Richton teaches 1 wherein said step of transmitting service information comprises transmitting one of local service information (C13, L24-52 and C14, L1-31 discusses transmitting local traffic information) **but is silent on** local emergency information to said mobile unit.

Day teaches a wireless warning system to alert and advise selected users to potential or existing emergencies within a geographic area covered by a service provider, where the system operates on the principle of a common or party-line pager communication link. The system comprises a user program in which each selected user has a coded party-line number that is activated by an emergency agency to alert said user of the emergency. The service provider, in communication with various emergency detection stations, such as police, fire, weather, etc., receives the emergency information regarding the geographic area for the emergency, and transmits the information simultaneously to all users. By this system the users are quickly advised of an emergency at a location, i.e., permanent home, mobile home, office, or school, or other location as more clearly defined hereafter (C2, L35-52).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Richton, such that users are notified of local emergencies, to provide means for said users to be alerted of an emergency and avoid/evacuate the area.

**As per claim 21, Richton teaches claim 1 and use of GPS to provide location information (C1, L43-54).**

Art Unit: 2683

***Allowable Subject Matter***

**Claims 19-20** allowed bases on the applicant amending per the examiner's recommendation (claim 1 and 11 were combined).

**Claims 24-28** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims recite highly specific designs not found in the prior art of record and are therefore novel in the examiner's opinion.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta  
12-16-04



WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600